

## March 2007

Welcome to the twenty-fourth edition of the **MassGIS GISette**, a bi-monthly newsletter e-mailed to over 1400 of our users and partner agencies to keep them informed of data updates, GIS events, and on-going technology developments. This newsletter will not replace more focused e-mails that many of you currently receive. A page on our website has been created for the [GISette](#). There you will find back issues of the GISette and an [online subscription form](#).

While our primary intent in publishing the GISette is to disseminate information related to MassGIS initiatives and data development in particular, we also see the GISette as a means of communicating public agency GIS news. So we encourage readers to send in updates or announcements concerning public agencies that they would like included in the GISette. We particularly want to encourage submission of announcements concerning data development projects. Announcements should be sent to Paul Nutting at [paul.nutting@state.ma.us](mailto:paul.nutting@state.ma.us).

### Welcome to the New EOE Administration

Governor Patrick has appointed [Ian A. Bowles as the Secretary of Energy & Environmental Affairs](#). Having worked in the Clinton Administration and the Kennedy School of Government, Mr. Bowles brings over 20 years of experience in the energy and environmental sector. More recently, Secretary Bowles was the President & CEO of the research institute, [MassINC](#). MassINC publishes [CommonWealth Magazine](#), which often features articles that use GIS data and maps. We extend a warm welcome to Secretary Bowles and look forward to working with him and other members of his team.

### Impervious Surface Datalayer Now Available

Created by Sanborn as part of the recent digital color orthophoto project, MassGIS now has available a [statewide Impervious Surface layer](#). By analyzing the values in the 1 meter pixels in a semi-automated process, areas were classified as being an Impervious Surface:

- Constructed surfaces such as buildings, roads, parking lots, brick, asphalt, or concrete
- Areas of man-made compacted soil or material such as mining or parking lots (no vegetation present)

Or, they were classified as Non-Impervious:

- All vegetated areas, natural and man-made
- Water bodies and wetland areas
- Ski runs
- Natural occurring barren areas (e.g. rocky shores, sand, bare soil)

MassGIS discovered that in some areas the surfaces of roads may have been partially obscured in the imagery by overhanging trees. This created interruptions in the derived Impervious Surface data. In order to fill in the gaps, MassGIS added the [EOT Road Centerline](#), which was buffered and rasterized. The widths of the buffers were carefully chosen so that the additional data generally fell

entirely within the extent of the Impervious Surface, resulting in a much more continuous road surface.

The large size of the dataset necessitated the tiling of the data according to the [2005 Color Ortho Mosaic index](#). Please contact [Philip John](#) with any questions about this data.

## Project Updates

### Land Use Mapping

The land use project is finally underway! As many of you know, the project funding was vetoed by Governor Romney, restored by the Legislature and then included by Governor Romney in the package of so-called 9C emergency cuts shortly after our procurement was announced. We evaluated the resulting proposals anyway and selected Sanborn, who is doing a similar project in RI, as the vendor. The procurement, including product specifications, can still be viewed at [www.Comm-PASS.com](http://www.Comm-PASS.com) - search for a solicitation with the keyword "ENV07- GIS01". Runner-up for this procurement was a Western Massachusetts company called GIS Matters. Thanks to the many people who helped us put the specification for this project together.

Finally, as promised, the Patrick administration restored the funding and we were able to sign a contract for this project two weeks ago; last week, on very short notice, we met with Sanborn to kick off the project and to designate three pilot areas – one in the Amherst area, one around Cape Ann and one in the SE around Taunton. The purpose of the pilot is to refine the classification "rules" and to give us a good sense of the final product. We will gratefully accept any local volunteer review of these areas when they are delivered – contact Philip John who is the project manager on our end at 617-626-1185. After completing both the draft and final classification for the pilot areas, the vendor is hoping, despite all the delays, to deliver a "draft" automated classification of the entire state by the end of the fiscal year. The final statewide classification, which requires a lot more manual editing, is not funded at this point, since it would be part of next fiscal year's budget. If funded, we would be looking at that final product in the December time frame.

Look for occasional updates here in the GISette.

### Strategic Plan Project

As many of you are aware, one of MassGIS' current projects is the Strategic Plan for Massachusetts' Spatial Data Infrastructure. In January we held six half-day workshops around the state. From the 225 people who attended the workshops we solicited input concerning the four categories of data - orthophotography and elevation data, streets and addresses, parcels, and critical infrastructure. We have posted the [presentation](#) and the [notes](#) from those workshops on our web site. Since the workshops, we have distilled a list of [findings](#) as well as follow-on questions and preliminary recommendations. These were presented to the Strategic Plan [Steering Committee](#) on February 6.

The next stage of the plan is conducting interviews with senior staff and decision makers at stakeholder organizations. In those interviews we will present what we have learned so far and solicit additional input. Information from the workshops and these interviews will form the basis for much of what will be in the Strategic Plan. A draft outline of the plan with recommendations will be presented to the Steering Committee at their second meeting on March 13. The final Strategic Plan is scheduled for release in late April. If you have any questions or other input to the planning process, please contact Paul Nutting at MassGIS (617-626-1238 or [paul.nutting@state.ma.us](mailto:paul.nutting@state.ma.us)).

## Geocoding for Massachusetts Agencies and Municipalities

MassGIS has been working with the [Statewide Emergency Telecommunications Board](#) to update the [NAVTEQ](#) geocoding files for Massachusetts. After notifying NAVTEQ of missing streets and other mistakes that were then researched by NAVTEQ, we recently received updates for Bristol, Norfolk and Plymouth Counties. More updates are forthcoming this spring for Dukes, Middlesex, Nantucket and Worcester Counties, with updates additional counties coming later in the year.

As a reminder, the [Massachusetts Highway Department](#) has purchased an enterprise license for the NAVTEQ geocoding files for Massachusetts. The license allows these files to be used by any Massachusetts government agency or political subdivision, including commissions, boards, regional agencies, authorities, and cities and towns; however the NAVTEQ files remain the property of NAVTEQ and may not be distributed to outside entities or for any commercial or mobile purposes. MassGIS has been distributing this data, which is available in a shapefile format or a personal geodatabase. To facilitate the receipt of the data, an organization must first identify a Technical Contact (usually a GIS person) and a Signatory, who should be at the highest supervisory level possible in order to cover the most possible users. If you would like to learn more about this valuable database, view FAQ's and technical documents, and download the license agreement and signature page, please [visit our website](#). Please direct any inquiries to [paul.nutting@state.ma.us](mailto:paul.nutting@state.ma.us).

## "Contrast Stretched" MrSID and JPEG 2000 files now available

MassGIS is pleased to announce that a new set of "contrast stretched" color 2005 ortho images in both MrSID and JPEG 2000 format are now available for download and order.

These images were produced primarily for users who do not have the software tools to modify the appearance of the original imagery. This second set of compressed data was produced from a set of GeoTIFFs that MassGIS modified with a 2.75 standard deviation linear contrast stretch in Erdas Imagine software. A linear contrast stretch is a simple way to improve the visible contrast of an image by changing the individual values of the pixels in the image. Usually, a contrast stretch is performed only on the display device (screen, printer, etc.), so that the data file values do not change. In this case, the stretched pixel values were saved to the tiffs and the tiffs were used to make the second set of MrSID and JP2 files.

MassGIS is making this second set of images available for those whose software does not permit display adjustments, or who simply prefer not to adjust the contrast. These contrast stretched images may help solve some of the problems that some users encountered with getting the original images to look the way they wanted. These new images have a much greater contrast when compared to the originals. The drawback is that the stretch is "fixed", so that you cannot recoup the original pixel values. With the original set of images (GeoTIFF, MrSID, and JP2 formats), the user can achieve the same type of contrast adjustment seen in the second set of imagery and still make use of the full range of data values acquired by the digital cameras.

Go to our website to see a [screenshot of the images](#) and details of all the 2005 ortho products currently available.

## Database Updates

- **New [Impervious Surface](#) Image Layer - 2/23/2007**  
The Impervious Surface raster layer represents impervious surfaces covering the Commonwealth of

Massachusetts. Impervious surfaces are defined as all constructed surfaces such as buildings, roads, parking lots, brick, asphalt, and concrete. Also included are areas of man-made compacted soil or material such as mining or unpaved parking lots (no vegetation present).

- **New [Police Stations, Fire Stations, and Town Halls](#) Layers - 2/22/2007**  
These two new point datasets, developed by [MEMA](#) and the regional planning agencies, contain all of the Police and Fire Stations in Massachusetts.
- **New [Ice Rinks](#) Layer - 2/21/2007**  
This new point dataset contains all of the ice skating rinks and arenas in Massachusetts.
- **NHESP Regulatory Layers Updated - 2/8/2007**  
NHESP has updated the [Priority Habitats of Rare Species](#) (updated Dec. 2006), [Estimated Habitats of Rare Wildlife](#) (Dec. 2006), and [Certified Vernal Pools](#) (Jan. 2007) layers.
- **Update to Open Space - 1/22/2007**  
The MassGIS Protected and Recreational OpenSpace Datalayer has been updated and a new shapefile and personal geodatabase have been placed on our ftp site. Updates include many new features throughout the state. See details on the [Open Space Datalayer Description](#) page.
- **Updates to DEP Public Water Supply Layers - 1/19/07**  
The [MassDEP GIS Group](#) has updated the following layers:
  - [Public Water Supplies](#)
  - [Zone IIs, IWPA](#)
- **State Legislative Districts Layers Updated - 1/12/2007**  
Attribute updates were made to the [House](#) and [Senate](#) layers to reflect changes based on the November, 2006, elections.

## **What's New on the MassGIS Website**

- **[Strategic Plan](#) - 2/1/2007**  
Overview of the Strategic Plan for Spatial Data Infrastructure in Massachusetts. These pages have been updated with the presentation and notes from the January workshops as well as a summary of the findings, questions, and preliminary recommendations derived from the workshops.
- A minor redesign of the website will require those who wish to download MassGIS data to first visit the metadata/datalayer description page. Many user phone and email inquiries can usually be answered via the metadata. The list of [available datalayers](#) will now be organized under headings that more closely resemble the Dataviewer menu and the [OLIVER](#) layers menu.

## **Events**

### **Massachusetts Land Trust Coalition Conservation Conference**

March 24, 2007, Bancroft School in Worcester  
MassGIS Director, Christian Jacqz will be conducting a session on using our online mapping tool, OLIVER, in land protection efforts.

### **Spring NEARC**

April 27, 2007, Smith College Campus Center in Northampton

---

Any comments or suggestions about the GISette are welcomed [paul.nutting@state.ma.us](mailto:paul.nutting@state.ma.us).

MassGIS-The Commonwealth's Office of Geographic and Environmental Information is located within the Executive Office of Environmental Affairs and is charged with the collection, enhancement, storage and dissemination of the Commonwealth's geographic data.

**Massachusetts Geographic Information System (MassGIS)**  
**251 Causeway St., Suite 500**  
**Boston, MA 02114**

Phone: (617) 626-1000

Fax: (617) 626-1249

